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PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : ARNTZEN, et al  
SERIAL NO : 09/767,734  
FILED : September 29, 2000  
TITLE : VACCINES EXPRESSED IN PLANTS

Grp./A.U. : 1638  
Conf. No. : 1914  
Examiner : Collins, Cynthia E.  
Docket No. : P00245USD

## AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Madam:

In response to the Office Action dated May 29, 2002, please amend the above-identified application as follows:

In the Specification

Please replace the paragraph at page 3, beginning at line 4 with the following:

C1  
Various avirulent viruses have been used as vectors. The gene for hepatitis B surface antigen (HBsAg) has been introduced into a gene non-essential for vaccinia replication. The resulting recombinant virus has elicited an immune response to the hepatitis B virus in test animals. Additionally, researchers have used attenuated bacterial cells for expressing hepatitis B antigen for oral immunization. Importantly, when whole cell attenuated *Salmonella* expressing recombinant hepatitis antigen were fed to mice, anti-viral T and B cell immune responses were

## CERTIFICATE OF FACSIMILE TRANSMISSION (37 C.F.R. § 1.6(a)(3))

I hereby certify that this document and the documents referred to as enclosed therein are being transmitted via facsimile to: Technology Center 1600 (Art Unit 1635) 703-872-9306, Attn: Assistant Commissioner for Patents, Washington, D.C. 20231, on this 20 day of September, 2002.

  
Heidi S. Nebel